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- 10. The method according to claim 7, wherein YAC-containing yeast cells are fused with HM-1 embryonic stem (ES) cells and G418 resistance colonies are picked and analysed 2-3 weeks after protoplast fusion.
- 11. The method according to claim 7, wherein ES cells containing a complete $HuIg\lambda$ YAC copy are used for blastocyte injection to produce a chimeric animal.
- 12. The method according to claim 11, wherein breeding of a chimeric animal with a Balb/c mouse results in germline transmission.
- 13. The method according to claim 12, comprising breeding the mouse with $\kappa^{-/-}$ mice to establish lines of transgenic mice.
- 14. A hybridoma obtainable from a three month old HuIg λ YAC/ $\kappa^{+/-}$ mouse by fusion of splenocytes with NSO myeloma cells, and subsequent selection of single clones.
- 15. Antibodies obtained from a hybridoma according to claim 14.

- 16. A transgenic mouse comprising as a translocus a yeast artificial chromosome (YAC) of greater than 100Kb which contains a proportion of the human $V\lambda$ genes proximal to the $J\lambda$ -C λ cluster in germline configuration.
- 17. The transgenic mouse according to claim 16, wherein the YAC includes a 380 Kb region of the human Igλ locus in authentic configuration with most Vλ genes of cluster A, Jλ-Cλ segments and the 3' enhancer.
- 18. A transgenic mouse comprising variable, joining and constant genes of the human λ light chain locus as a transgenic locus on a YAC, wherein B cells of said mice rearrange said λ light chain genes and the mice express serum immunoglobulins containing human λ light chains.
- 19. The transgenic mouse comprising human λ light chain genes according to claim 16, wherein the λ translocus is rearranged with similar efficiency as endogenous mouse κ and at the same time as or before the endogenous κ locus.
- 20. The transgenic mouse comprising human λ light chain genes according to claim 16, wherein the endogenous κ locus has been silenced, and the mouse expresses serum immunoglobulins containing human λ light chains.

- 21. The transgenic mouse carrying human λ light chain genes according to claim 16, further comprising human heavy chain genes as a second transgenic locus integrated on a separate YAC, wherein the mouse expresses serum immunoglobulin molecules containing combinations of human heavy and λ light chains.
- 22. The transgenic mouse carrying human λ light chain genes according to claim 21, wherein the second transgenic locus carries a diversity of human heavy chain constant region genes, including μ , δ and γ genes.
- 23. The transgenic mouse carrying human λ light chain genes and human heavy chain genes according to claim 22, wherein the heavy chain transgenic locus carries a diversity of human heavy chain constant region genes, including μ , δ and γ genes, in authentic germline configuration.
- 24. The transgenic mouse carrying human λ light chain genes according to claim 16, further comprising human κ light chain genes as a second transgenic light chain locus integrated on a separate YAC, wherein the mouse expresses serum immunoglobulin molecules containing human κ and λ light chains.
- 25. The transgenic mouse carrying human λ light chain genes according to claim 16, further comprising human heavy chain genes as a second transgenic locus and human κ light chain genes as a third transgenic locus, wherein the mouse

expresses serum immunoglobulin molecules containing human heavy chains in combination with human κ or λ light chains.

- 26. The transgenic mouse carrying human λ light chain genes according to claim 16, wherein expression of the endogenous mouse heavy and/or light chain loci has been prevented through gene targeting or other means and which expresses serum immunoglobulin containing human heavy and/or light chains and which are deficient in production of mouse immunoglobulin.
- 27. A transgenic mouse carrying human λ light chain genes in which expression of the human λ locus is equal to or greater than that of the endogenous or transgenic human κ locus.
- 28. The transgenic mouse carrying human λ light chain genes according to claim 27, wherein the λ translocus has been bred to homozygosity.
- 29. The transgenic mouse carrying human λ light chain genes according to claim 27, wherein the rearranged variable genes in the λ translocus are subject to somatic hypermutation.
- 30. A method for production of human antibodies comprising stimulating with antigen transgenic mice incorporating human λ light chain genes into their genome and collecting the human antibodies which bind to the antigen.

- 31. A method for production of human monoclonal antibodies from transgenic mice and immunised as in claim 30, by creation of hybridomas through fusion to an appropriate mouse myeloma cell line.
- 32. Human monoclonal antibodies comprising human heavy and light chains of diverse isotypes and chain combinations produced from transgenic mice carrying the human λ translocus.
- 33. Human monoclonal antibodies according to claim 32, wherein the variable regions of the human λ light chains have undergone somatic mutation.
- 34. Human monoclonal antibodies according to claim 32, wherein the antibodies have an affinity for antigen of greater than 10⁻⁸ M.